

5 What is claimed is:

1. An adjustable trailer hitch, comprising:

a longitudinally extending assembly comprising a stationary portion adapted to be fixed to a vehicle, and a translating portion translatingly attached to the stationary portion and adapted to translate longitudinally relative to the stationary portion;

10 a first control mechanism operatively attached to the longitudinally extending assembly to controllably translate the translating portion longitudinally relative to the stationary portion;

a latitudinal cross bracket assembly attached to the translating portion such that the latitudinal cross bracket assembly translates longitudinally when the translating portion

15 translates longitudinally;

a hitch receiver portion translatingly attached to the cross bracket assembly and adapted to translate latitudinally relative to the cross bracket assembly; and,

a second control mechanism operatively attached to the receiver portion to controllably translate the receiver portion latitudinally relative to the cross bracket assembly.

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2. The adjustable trailer hitch of claim 1 wherein the first control mechanism comprises a motor.

3. The adjustable trailer hitch of claim 1 wherein the second control mechanism
25 comprises a motor.

5 4. The adjustable trailer hitch of claim 1 further comprising a motor operatively attached to one of the first control mechanism and the second control mechanism.

5. The adjustable trailer hitch of claim 4 further comprising a second motor attached to the other of the first control mechanism and the second control mechanism.

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6. The adjustable trailer hitch of claim 1 wherein the longitudinally extending assembly is adapted to extend telescopically.

7. The adjustable trailer hitch of claim 1 wherein the longitudinally extending assembly
15 comprises more than one translating portion.

8. The adjustable trailer hitch of claim 1 further comprising a controller operatively connected to at least one of the first control mechanism and the second control mechanism.

20 9. The adjustable trailer hitch of claim 1 wherein said longitudinally extending assembly further comprising a worm gear disposed between said stationary portion and said translating position.

10. The adjustable trailer hitch of claim 1 further comprising a worm gear operatively
25 disposed between said latitudinally cross bracket assembly and said hitch receiver position.

5 11. The adjustable trailer hitch of claim 1 in which the first control mechanism transmits power through a first worm gear and the second control mechanism transmits power through a second worm gear.

12. The adjustable trailer hitch of claim 1 further comprising a safety latch pivotally
10 attached to the stationary portion, the safety latch including a portion adapted to contact the cross-bracket assembly when the cross-bracket assembly is retracted, said contact causing the safety latch to pivot toward a latched position.

13. The adjustable trailer hitch receiver assembly of claim 13 wherein the safety latch
15 comprises a first pin receiving portion and the cross-bracket assembly comprises a second pin receiving portion, and the first pin receiving portion is aligned with the second pin receiving portion when the safety latch is in the latched position such that a pin can be engaged in both the first and second pin receiving portions.

20 14. A method of connecting a vehicle to a trailer, comprising the steps of:
moving a vehicle with an adjustable trailer hitch so that the adjustable trailer hitch is substantially adjacent a trailer tongue;
controllably moving the trailer hitch laterally and longitudinally relative to the vehicle to a position aligned with the trailer tongue; and,
25 engaging the trailer hitch with the trailer tongue.

5 15. The method of claim 15 further comprising the step of moving the trailer hitch to a retracted and centered position.

16. The method of claim 15 further comprising the step of securing a safety latch with said trailer hitch.

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17. The method of claim 15 further comprising the steps of moving the trailer hitch to a retracted and centered position and securing the safety latch with said trailer hitch.

18. The method of claim 15 wherein the adjustable trailer hitch includes:

15 a longitudinally extending assembly comprising a stationary portion adapted to be fixed to a vehicle, and a translating portion translatingly attached to the stationary portion and adapted to translate longitudinally relative to the stationary portion;

20 a first control mechanism operatively attached to the longitudinally extending assembly to controllably translate the translating portion longitudinally relative to the stationary portion;

21 a latitudinal cross bracket assembly attached to the translating portion such that the latitudinal cross bracket assembly translates longitudinally when the translating portion translates longitudinally;

25 a receiver portion translatingly attached to the cross bracket assembly and adapted to translate latitudinally relative to the cross bracket assembly; and,

26 a second control mechanism operatively attached to the receiver portion to controllably translate the receiver portion latitudinally relative to the cross bracket assembly.

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19. An adjustable trailer hitch, comprising:

longitudinally extending means comprising stationary means adapted to be fixed to a vehicle, and translating means translatingly attached to the stationary means and adapted to translate longitudinally relative to the stationary means;

10 first control means operatively attached to the longitudinally extending means to selectively translate the translating means longitudinally relative to the stationary means;

latitudinal cross bracket means attached to the translating means such that the latitudinal cross bracket means translates longitudinally when the translating means translates longitudinally;

15 receiver means translatingly attached to the cross bracket means and adapted to translate latitudinally relative to the cross bracket means; and,

second control means operatively attached to the receiver means to selectively translate the receiver means latitudinally relative to the cross bracket means.